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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,265	11/14/2003	Harold A. Ladouceur	60,152-1003	3851

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EXAMINER	
SHARP, JEFFREY ANDREW	

ART UNIT	PAPER NUMBER
3677	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/714,265	LADOUCEUR, HAROLD A.	
	Examiner	Art Unit	
	Jeffrey Sharp	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

[1] This action is responsive to Applicant's remarks/amendment filed on 02 August 2005 with regard to the Official Office action mailed on 17 May 2005

Status of Claims

[2] Claims 1 and 3-21 are pending.

Claim 2 is cancelled.

Claim Rejections - 35 USC § 112

[3] The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

[4] Claims 10 and 12 were previously rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has successfully addressed the issue(s) of indefiniteness in the amendment filed on 02 August 2005.

Accordingly, the rejection(s) of claims 10 and 12 under 35 U.S.C. 112, second paragraph have been withdrawn.

Claim Rejections - 35 USC § 103

[5] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

[6] Claims 1 and 3-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ladouceur US-5,868,535.

In short, Ladouceur suggests a male (self-riveting) fastener (20) comprising: a shaft (28), a co-axial radial flange portion (24) having plurality of circumferentially spaced radial teeth (44) including a "generally" radial planar surface (42,46) extending "generally" perpendicular to "a" circumference of said flange portion (24), an integral tubular barrel portion (22) of relatively constant cylindrical cross-section, and a bottom wall (blind portion of hole 38 near 26);

said fastener (20) being joined to a metal panel (52) having an L-shaped portion (near 68) including a "generally" perpendicular portion (near 68) that makes face to face contact with an outer surface (44,46) of said radial flange portion (24) and between said radial teeth (at 46) so as to provide a means for anti-rotation, and a radially inwardly directed portion (68) deformed between a "generally" radially outwardly extending distal end portion (66) and said radial flange portion (24) of said fastener (20);

said radially inwardly directed portion (68) being of "generally" rectangular shape and "generally" parallel to said metal panel (52), having a width of "about" one half or less that of said metal panel (52), and accepting said tubular barrel portion (24) through an opening (50);

wherein a "substantially" continuous convex arcuate surface (inside 22,38,52) extends from said bottom wall (blind portion of hole 38 near 26) to said "generally" radially outwardly extending distal end portion (66).

Although Ladouceur fails to disclose expressly in words, the specific relative size limitation: "said tubular barrel portion having an axial length equal to or less than sixty percent of an outer diameter of said outer surface of said tubular barrel portion"; Ladouceur illustrates this limitation in the figures (see below response to arguments).

However, Ladouceur fails to disclose expressly, the specific material limitation: "said male fastener element formed of carbon steel having a hardness greater than 30 Rockwell on the C scale".

It would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the material of the male (self-riveting) fastener taught by Ladouceur, to be of greater hardness than RC-30. Ladouceur suggests a heat-treated carbon steel,[1] and suggests that it is "understood...the preferred material for the self-riveting fastening element of this invention will depend upon the application including the panel metal". Note that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin, 125 USPQ 416.* It is also common knowledge to choose a material that has sufficient strength, durability, flexibility, hardness, etc. for the application and intended use of that material. In the instant case, one of ordinary skill knows that studs in the art are commonly made of high strength carbon steel[2], and are heat-treated to suit the hardness needs of the application.[3] If a panel (52) happens to be harder or thicker than normal, a male (self-riveting) fastener meant to penetrate or pierce the panel would need to be of greater hardness. This could be done by selectively heat-treating

[1] column 8 lines 25-30.
[2] as evidenced by NPL Engineers Edge.
[3] as evidenced by NPL Chicago-Rawhide.

parts of said fastener, which is known in the art[4]. Heat-treating may also be advantageous so as to prevent premature wear or stripping of the male threads of the fastener. Those of ordinary skill in the art would recognize that case hardening increases brittleness and proneness to fracture, but would allow better penetration of a self-riveting fastener into a material (e.g., use in stamping tools, dies, etc...). Ordinary experimentation with material properties would yield an optimum hardness value. Note that it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller, 105 USPQ 233.* Further, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).* Refer to MPEP § 2144.05.

[7] Claims 1 and 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinjo US-2001/0048859.

In short, Shinjo suggests a male (self-riveting) fastener (1) comprising: a shaft (2), a co-axial radial flange portion (5) having plurality of circumferentially spaced radial teeth (9) including a "generally" radial planar surface (5, sides of 9) extending "generally" perpendicular to "a" circumference of said flange portion (5), an integral tubular barrel portion (3) of relatively constant cylindrical cross-section, a "generally" radially outwardly extending distal end portion (6,7,8,31) "generally perpendicular to a metal panel (10), and said radial flange portion (5) of said fastener (1), and a bottom wall (blind portion of hole 4);

[4] as evidenced by Arrand US-6,644,903.

said fastener (1) being joined to said metal panel (10), which has a "generally" perpendicular portion (11) that makes face to face contact with an outer surface of said radial flange portion (5) and between said radial teeth (9) so as to provide a means for anti-rotation;

wherein a "substantially" continuous convex arcuate surface (inside 3,24,25,31) extends from said bottom wall (blind portion of hole 4) to said "generally" radially outwardly extending distal end portion (6,7,8,31).

However, Shinjo fails to disclose expressly, the specific relative size limitation: "said tubular barrel portion having an axial length equal to or less than sixty percent of an outer diameter of said outer surface of said tubular barrel portion."

Further Shinjo fails to disclose expressly, the specific material limitation: "said male fastener element formed of carbon steel having a hardness greater than 30 Rockwell on the C scale".

At the time of invention, it would have been obvious to one of ordinary skill in the art, to modify the relative dimensions of the male (self-riveting) fastener taught by Shinjo, because it has been held that a modification such as a mere change in size of a component would be obvious. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose, 105 USPQ 237 (CCPA 1955).* See also, MPEP § 2144.04 which states: *In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976)* ("mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled." *531 F.2d at 1053, 189 USPQ at 148.*). In *Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984)*, the Federal Circuit held that, where the only difference between the prior art and the

claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the material of the male (self-riveting) fastener taught by Shinjo, to be of greater hardness than RC-30. Note that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin, 125 USPQ 416.* It is also common knowledge to choose a material that has sufficient strength, durability, flexibility, hardness, etc. for the application and intended use of that material. In the instant case, one of ordinary skill knows that studs in the art are commonly made of high strength carbon steel[5], and are heat-treated to suit the hardness needs of the application.[6] If a panel (10) happens to be harder or thicker than normal, a male (self-riveting) fastener meant to penetrate or pierce the panel would need to be of greater hardness. This could be done by selectively heat-treating parts of said fastener, which is known in the art[7]. Heat-treating may also be advantageous so as to prevent premature wear or stripping of the male threads of the fastener. Those of ordinary skill in the art would recognize that case hardening increases brittleness and proneness to fracture, but would allow better penetration of a self-riveting fastener into a material (e.g., use in stamping tools, dies, etc.). Ordinary experimentation with material properties would yield an optimum hardness value. Note that it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller,*

[5] as evidenced by NPL Engineers Edge.

105 USPQ 233. Further, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)*. Refer to MPEP § 2144.05.

[8] Claims 1, 3-13, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosan US-3,125,146.

In short, Rosan suggests a male (self-riveting) fastener comprising: a shaft (22), a co-axial radial flange portion (34,42) having plurality of circumferentially spaced radial teeth (44) including a "generally" radial planar surface (42, sides of teeth 44) extending "generally" perpendicular to "a" circumference of said flange portion (34), and an integral tubular barrel portion (near 36) of relatively constant cylindrical cross-section;

said fastener being joined to a metal panel (54) having an L-shaped portion (near 50,59) including a "generally" perpendicular portion that makes face to face contact with an outer surface of said radial flange portion (34) and between said radial teeth (44) so as to provide a means for anti-rotation, and a radially inwardly directed portion (59) deformed between a "generally" radially outwardly extending distal end portion (32) and said radial flange portion (34) of said fastener;

said radially inwardly directed portion (59) being of "generally" rectangular shape and "generally" parallel to said metal panel (54), having a width of "about" one half or less that of said metal panel (54), and accepting said tubular barrel portion (near 36) through an opening (56);

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[6] as evidenced by NPL Chicago-Rawhide.

wherein the axial length of said tubular portion (near 36) is less than 60 percent of an outer diameter of said tubular portion.

However, Rosan fails to disclose expressly, the specific material limitation: "said male fastener element formed of carbon steel having a hardness greater than 30 Rockwell on the C scale". Note that Rosan does broadly state that the fastener is "metallic".[8]

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the material of the male (self-riveting) fastener taught by Rosan, to be of greater hardness than RC-30. Note that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin, 125 USPQ 416.* It is also common knowledge to choose a material that has sufficient strength, durability, flexibility, hardness, etc. for the application and intended use of that material. In the instant case, one of ordinary skill knows that studs in the art are commonly made of high strength carbon steel[9], and are heat-treated to suit the hardness needs of the application.[10] If a panel happens to be harder or thicker than normal, a male (self-riveting) fastener meant to penetrate or pierce the panel would need to be of greater hardness. This could be done by selectively heat-treating parts of said fastener, which is known in the art[11]. Heat-treating may also be advantageous so as to prevent premature wear or stripping of the male threads of the fastener. Those of ordinary skill in the art would recognize that case hardening increases brittleness and proneness to fracture, but would allow better penetration of a self-riveting fastener into soft material (e.g., use in stamping tools, dies, etc...). Ordinary

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[7] as evidenced by Arrand US-6,644,903.
[8] first line claim 1.
[9] as evidenced by NPL Engineers Edge.
[10] as evidenced by NPL Chicago-Rawhide.

experimentation with material properties would yield an optimum hardness value. Note that it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller, 105 USPQ 233.* Further, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).* Refer to MPEP § 2144.05.

Response to Arguments/Remarks

[9] Claim 1 and 3-7 were previously rejected under 35 U.S.C. 102(e) as being anticipated by Vrana et al. US 2005/0025605. Claims 2 and 8-17 were rejected under 35 U.S.C. 103(a) as being obvious over Vrana et al. US 2005/0025605.

Applicant's arguments/remarks with regard to this reference have been fully considered, and are persuasive.

The examiner has verified and acknowledged that the assignees to the Vrana et al. application serial number 10/630,060 (i.e., Fabristeel Products, Inc. and Whitesell International Corporation) are indeed the same as the present application. Furthermore, both applications were filed within the same year. Accordingly, this reference has been withdrawn as a qualifying 35 U.S.C. §102(e) reference.

It is to be noted, however, that as stated by Applicant on the top of page 11 remarks, claim 1 has NOT been *"amended to recite that the outer surface of the tubular barrel portion is 'cylindrical,' deleting 'generally'."*

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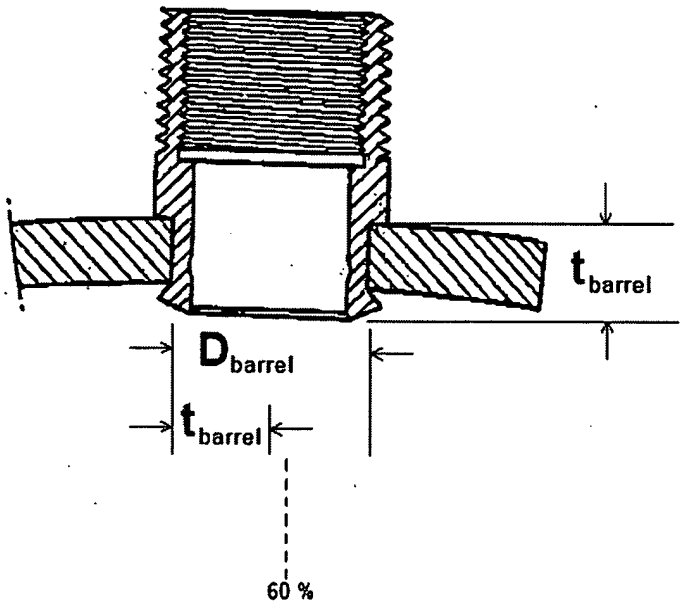
[11] as evidenced by Arrand US-6,644,903.

[10] Claim 1 was previously rejected under 35 U.S.C. 102(b) as being anticipated by Foster et al. US-2,269,895.

Applicant's arguments/remarks with regard to this reference have been fully considered, and are persuasive in view of the amendment to claim 1.

Foster et al. DOES teach each and every limitation found in the instant claim 1, including the specific relative size limitation *"said tubular barrel portion has an axial length equal to or less than sixty percent of an outer diameter of said generally cylindrical outer surface of said tubular barrel portion"* as shown in the figure below:

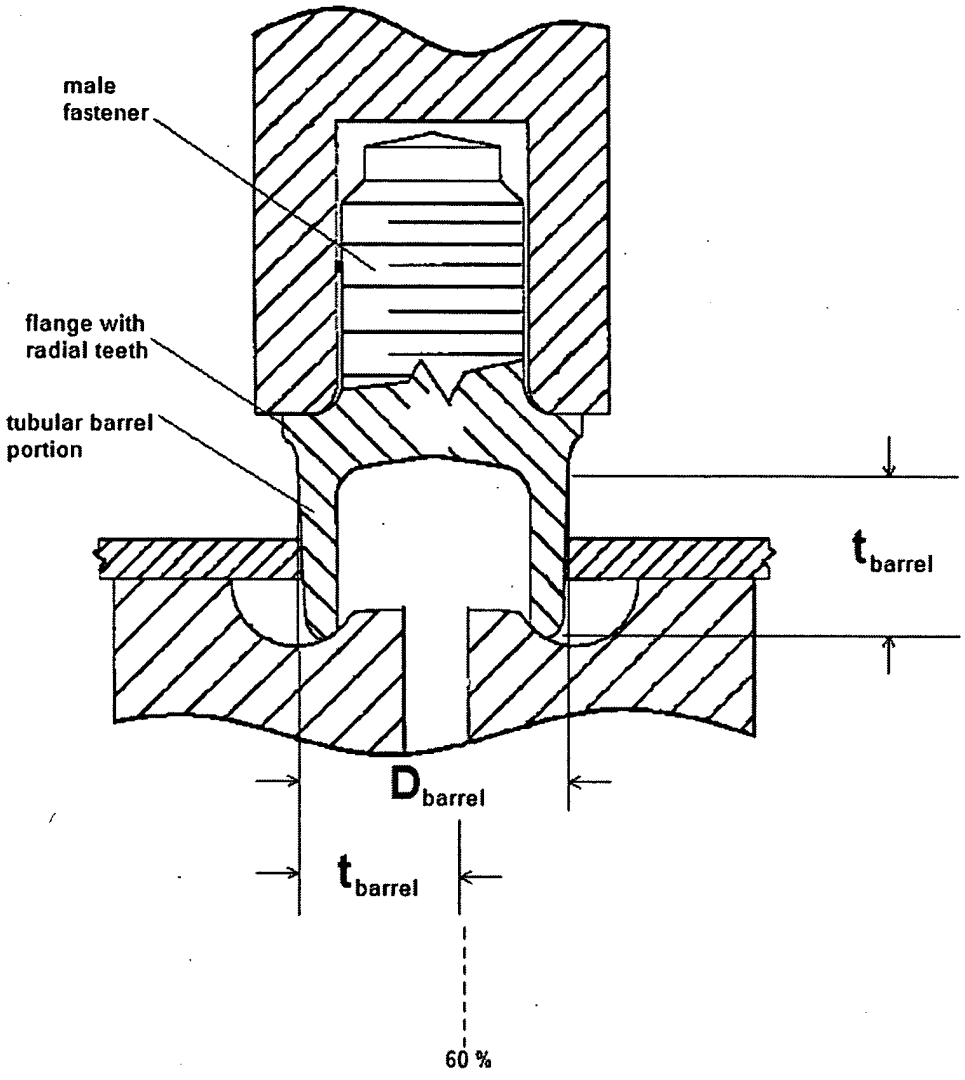


However, Applicant has amended claim 1 such that the Foster et al. reference fails to anticipate the added relative hardness limitation (greater than Rockwell C 30). Consequently, upon further consideration, a new ground(s) of rejection necessitated by amendment is made below.

[11] Claim(s) 1-21 were previously rejected under 35 U.S.C. 103(a) as being obvious over Ladouceur US-5,868,535.

Applicant's arguments/remarks with regard to this reference have been fully considered, but are not persuasive.

The disclosure set forth in US-5,868,535 would suggest to someone ordinarily skilled, a male fastener having the limitations in claims 1 and 3-21. As for the relative size limitation, Ladouceur (although not expressly in the specification) depicts a male fastener having a *"tubular barrel portion has an axial length equal to or less than sixty percent of an outer diameter of said generally cylindrical outer surface of said tubular barrel portion"*



With regard to Applicant's argument on the bottom of page 12 remarks, that *"the outer surface of the barrel portion* [taught by Ladoucer] *is not cylindrical"*, Applicant is directed to column 4 line 66 - column 5 line 1 of the '535 patent, which states: *"The tubular riveting portion 22 further includes an internal surface 38 and an external surface 40 which are generally cylindrical."*

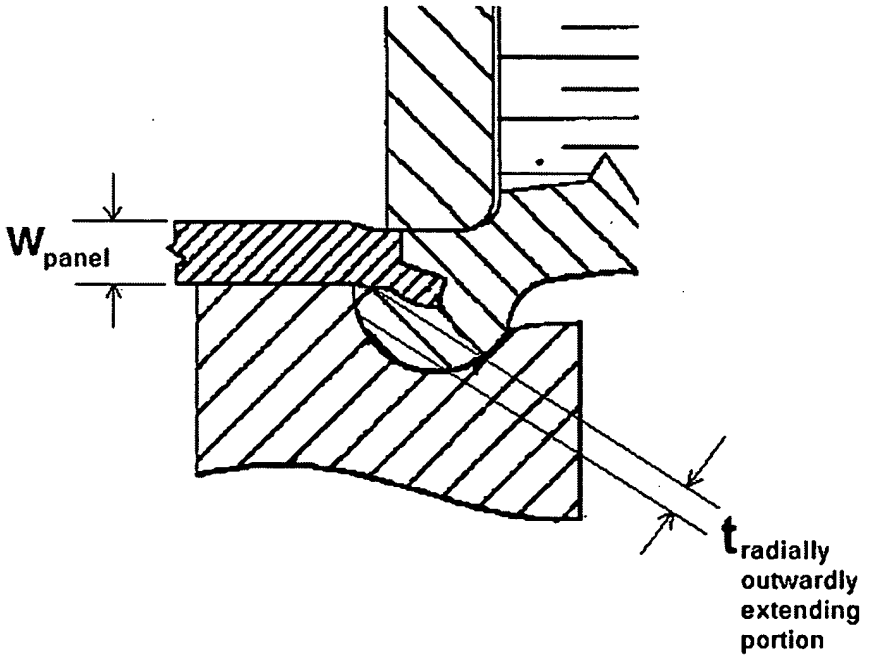
With regard to Applicant's argument on the bottom of page 13 remarks, that *"there is no disclosure* [in the Ladoucer '535 patent] *of the preferred material from which the fastener is*

made", Applicant is directed to column 8 of the '535 patent, which states:

> and the fastener may be formed of medium carbon steel, such as SAE 1035 steel and the fastener is preferably heat treated. As will be understood, however, the preferred material for the self-riveting fastening element of this invention will depend upon the application including the panel metal.

The disclosure does not require medium carbon steel, but merely suggests a possible embodiment using the open language "MAY" and "SUCH AS". Furthermore, the disclosure of the '535 patent suggests a preferred heat treatment (as those skilled in the art would appreciate heat treating causes an expected result in hardness). Moreover, Ladoucer already makes obvious the fact that the material may be varied to suit the automotive (i.e., "high performance") applications, such as the type of panel used.

The '535 patent suggests a "generally radially outwardly extending distal end portion of said barrel portion has a thickness equal to about one half or less than a width of said planar portion of said panel.



In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In summary, the examiner takes the position that the '535 patent 1) provides sufficient motivation for varying the material and hardness of a male self-riveting fastener element, and 2) provides a prima facie demonstration of obviousness.

Consequently, upon further consideration of the art and full consideration of Applicant's remarks, the rejection of claims 1 and 3-21 under 35 U.S.C. 103(a) as being obvious over Ladouceur US-5,868,535 stands. Claim 2 has been cancelled, and thus all arguments drawn to claim 2 are moot.

[12] Claims 1-7 were previously rejected under 35 U.S.C. 103(a) as being unpatentable over Shinjo US-2001/0048859.

Applicant's arguments/remarks with regard to this reference have been fully considered, but are not persuasive. All arguments drawn to claim 2 are moot in view of its cancellation.

The examiner agrees with Applicant, that Shinjo is silent about a particular hardness and that the tubular barrel portion (3) appears to be illustrated ashaving an axial length to outer diameter ratio of roughly 70% (slightly greater than 60%). However, the examiner takes the

position that Shinjo's male self-riveting fastener element performs the same function and attaches in the same manner. To this point, Applicant has not provided sufficient evidence that the present invention performs better or has unexpected results over the prior art of record, but merely alleges that the present invention solves a particular "cracking" and/or "pull-off force" problem found in the prior art. The examiner invites and encourages the Applicant to submit R&D findings, pull-off force data, FEA comparisons, or some other evidence that would show that the claimed relative size dimensions and material (hardness) would yield unexpected results. It is well within the ordinary skill level of a worker in the art, to change the material of a prior art device. It is also well within the ordinary skill of a worker in the art, to change the relative size dimensions of a prior art device without departing from the scope, unless unexpected results are achieved.

Consequently, upon further consideration of the art and full consideration of Applicant's remarks, the rejection of claims 1 and 3-7 under 35 U.S.C. 103(a) as being obvious over Shinjo US-2001/0048859 stands.

[13] Claim(s) 1, 3, 4, 15, and 17 were previously rejected under 35 U.S.C. 102(b) as being anticipated by or under 35 U.S.C. 103(a) as being obvious over Barry US-3,079,970

Applicant's arguments/remarks with regard to this reference have been fully considered, and are persuasive.

Accordingly, this rejection has been withdrawn.

[14] Claim(s) 1-13 and 15-20 were previously rejected under 35 U.S.C. 102(b) as being anticipated by or under 35 U.S.C. 103(a) as being obvious over Rosan US-3,125,146.

Applicant's arguments/remarks with regard to this reference have been fully considered, but are not persuasive.

Firstly, the term "high performance application" may be broadly construed as any application. Secondly, there is no reason why Rosan would disqualify his device from "high performance applications". Thirdly, the instant claims do not present any suggestion of a "high performance application". Lastly, the tubular portion (inherently created by what Applicant refers to as "annular groove 36"), is indeed at least "generally cylindrical" in nature, because the definition of the word "annular" is:

an·nu·lar Pronunciation Key (ăn'yə-lər)
adj.
Shaped like or forming a ring.

[Latin ānulāris, from ānulus, *ring*. See **annulus**.]

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an'nu·lar'i·ty (-lăr'ĭ-tē) *n.*
an'nu·lar·ly *adv.*

Source: *The American Heritage® Dictionary of the English Language, Fourth Edition*

Consequently, upon further consideration of the art and full consideration of Applicant's remarks, the rejection of claims 1, 3-13, and 15-20 under 35 U.S.C. 103(a) as being obvious over Rosan US-3,125,146 stands. The rejection of claims 1, 3-13, and 15-20 under 102(b) as being

anticipated by Rosan has been withdrawn. Claim 2 has been cancelled, and thus all arguments drawn to claim 2 are moot.

New Grounds of Rejection

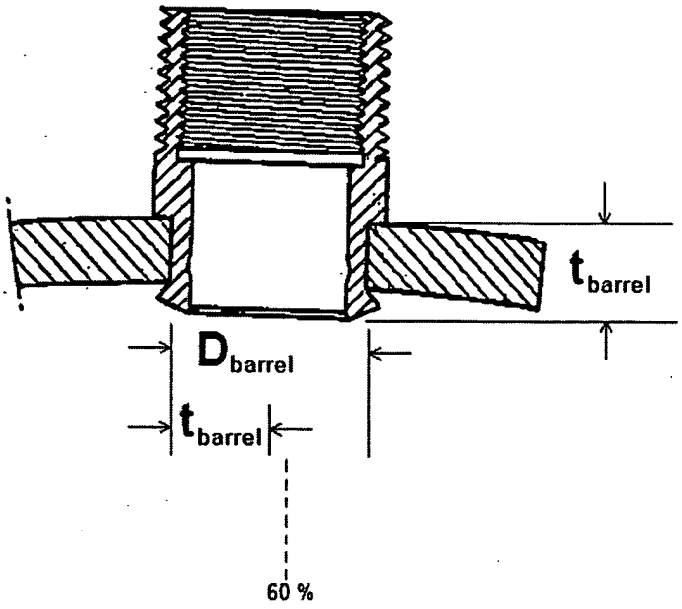
Claim Rejections - 35 USC § 103

[15] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

[16] Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al. US-2,269,895.

In short, Foster et al. teaches a male self-riveting fastener having a flange and a tubular barrel portion that is radially outwardly deflected. The fastener comprises the specific relative size limitation: *"said tubular barrel portion has an axial length equal to or less than sixty percent of an outer diameter of said generally cylindrical outer surface of said tubular barrel portion"* as shown in the figure below:



However, the Foster et al. reference is silent as to the hardness of the fastener.

At the time of invention it would have been obvious to one having an ordinary skill in the art, to make the fastener taught by Foster et al. greater than 30 Rockwell on the C scale, in order to prevent thread stripping which is common with softer metals.

Conclusion

[17] Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

[18] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (571) 272-7074. The examiner can normally be reached 7:00 am - 5:30 pm Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

NEW CENTRAL FAX NUMBER
Effective July 15, 2005

On July 15, 2005, the Central FAX Number will change to 571-273-8300. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number. To give customers time to adjust to the new Central FAX Number, faxes sent to the old number (703-872-9306) will be routed to the new number until September 15, 2005. After September 15, 2005, the old number will no longer be in service and 571-273-8300 will be the only facsimile number recognized for "centralized delivery".

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAS

10/14/05

ROBERT J. SANDY
PRIMARY EXAMINER